

Derel #57046

Work Order ID 44557

Friday, June 26, 2009 8:45:09 AM



Page 1

Item ID:	D3016-041	Accept		Setup	Start	
Revision ID:	A				Stop	
Item Name:	Seat Frame Assembly					
Start Date:	7/15/2009	Start Qty:	1.00		Cust Item ID:	
Required Date:	8/3/2009	Req'd Qty:	1.00		Customer:	
Reference:						
Approvals:	Process Plan:		Date:	Tooling:	Date:	Run Start
	QC:		Date:	SPC (Y/N):	Date:	Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr								
D3016	Rev A								

100		0.00							
	Large Fab								
Large Fab	Memo	0.00							
Large Fab	1-Cut all tubes as per Dwg D3016 <input type="checkbox"/> 2-Deburr <input type="checkbox"/> 3-Assemble and weld as per Dwg D3016 using welding jig DT8597 <input type="checkbox"/> A/R 4130 Rod Batch: <u>M10075</u> <input type="checkbox"/> 4-Transfer drill holes from D3017-041 and D3021-041 in seat frame D3016-041								

EL 10-3-9 (X2)

110	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
QC	Memo	0.00							
Quality Control									

BE 10/03/10

120	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									

Subersko






(X2)



Work Order ID 44557




Friday, June 26, 2009 8:45:09 AM



Page 2

Item ID: D3016-041 Accept  Setup Start 
Revision ID: A Stop 
Item Name: Seat Frame Assembly
Start Date: 7/15/2009 Start Qty: 1.00  Cust Item ID:
Required Date: 8/3/2009 Req'd Qty: 1.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130  Powdercoat Powder Coating	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3 <i>M11288</i> Memo Install paint screws on fitting ends <input type="checkbox"/> START TIME: <i>10:00AM</i> <input type="checkbox"/> OVEN TEMPERATURE: <i>320°F</i> <input type="checkbox"/> FINISH TIME: <i>10:30AM</i>	0.00 0.00		<i>=> M 10/01/11</i>		<i>X2</i>	<i>Ø</i>		
140  QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00		<i>OK 10-3-11</i>		<i>(R)</i>			
150  Packaging Packaging	Identify as per dwg & Stock Location: <i>G-A</i> Memo	0.00 0.00							<i>EP 10/03/16 (2)</i>

Friday, June 26, 2009 8:45:09 AM

Page 3

Accept

Setup Start

Stop

Cust Item ID:

Customer:

Run Start

Stop

Stop

**Insp.
Stamp**

0.00

QC

0.00

Quality Control

MF 10-3-16

Picklist Print

Friday, June 26, 2009 8:45:09 AM

Page 1

Work Order ID: 44557

Parent Item: D3016-041RevA

Parent Item Name: Seat Frame Assembly







Comments:

Start Date: 7/15/2009

Required Date: 8/3/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
✓ D3016-13RevA		Manufactured	No			100	Each	0.0000	2.0000			
												
B44778 x2												
Bracket												
✓ D3016-15RevA		Manufactured	No			100	Each	0.0000	2.0000			
												
B43413 x2												
Gusset												
✓ D3016-17RevA		Manufactured	No			100	Each	0.0000	2.0000			
												
B39641 x2												
Gusset												
✓ M4130NT0.500W.049		Purchased	No			100	f	0.0000	4.5263			
												
M110740 x 3.33'												
4130 RD Tube .500 x.049W												
✓ M4130NT0.750W.049		Purchased	No			100	f	0.0000	4.5263			
												
M11105 x 4.5'												
4130 RD Tube .750 x.049W												
M4130NT1.000W.120		Purchased	No			100	f	0.0000	1.5789			
												
M113665 x 1.33'												
✓ 4130 RD Tube 1.00 x .120wall												

D3020-1

B36713

x4

EL 10-3-9

10.03.09

Date: Monday, 12/01/2009 2:30:15 PM
User: Julie Dawson

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	SEAT FRAME ASSEMBLY	
Job Number :	44557			
Estimate Number :	11122			
P.O. Number :		Part Number :	D3016041	
This Issue :	12/01/2009	S.O. No. :		
Prsht Rev. :	NC	Drawing Number :	D3016 REV A	
First Issue :	/ /	Project Number :	N/A	
Previous Run :	44556	Drawing Revision :	A	
		Material :		
Written By :		Due Date :	10/02/2009	Qty: 1 Um: Each
Checked & Approved By :	<u>JUD 09.01.12</u>			
Comment :	Est. A 01.09.19 New issue EC			

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	✓ M4130NT0750W049	4130 RD Tube .750 x.049W
-----	-------------------	--------------------------



Comment: Qty.: 4.5150 f(s)/Unit Total : 4.5150 f(s)
4130 Tube .750 OD x.049W
Cut:- AISI 4130N tube, Ø3/4" x 0.049" wall
Batch: _____

2.0	✓ M4130NT1000W120	4130 RD Tube 1.00 x .120wall
-----	-------------------	------------------------------



Comment: Qty.: 1.5750 f(s)/Unit Total : 1.5750 f(s)
4130 Tube 1.0"D X 0.120"W
batch _____

3.0	✓ M4130NT0500W049	4130 RD Tube .500 x.049W
-----	-------------------	--------------------------



Comment: Qty.: 4.5150 f(s)/Unit Total : 4.5150 f(s)
4130 Tube .500 OD x.049W
Cut- AISI 4130N tube, Ø1/2" x 0.049" wall
Batch: _____

4.0	✓ D301617	Gusset
-----	-----------	--------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)
Gusset
Pick:
Qty Part Number Description Batch
2 D3016-17 Gusset _____

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 12/01/2009 2:30:15 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SEAT FRAME ASSEMBLY

Job Number: 44557

Part Number: D3016041

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

✓ D301613

Bracket



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Bracket

Pick:

Qty	Part Number	Description	Batch
2	D3016-13	Bracket	

6.0

✓ D301615

Gusset



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Gusset

Pick:

Qty	Part Number	Description	Batch
2	D3016-15	Gusset	

7.0

✓ D30201

Fitting



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Fitting

Pick:

Qty	Part Number	Description	Batch
4	D3020-1	Fitting	



8.0

✓ LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Cut all tubes as per Dwg D3016

2-Deburr

3-Assemble and weld as per Dwg D3016 using welding jig DT8597

A/R 4130 Rod Batch: _____

4-Transfer drill holes from D3017-041 and D3021-041 in seat frame D3016-041

9.0

✓ QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 12/01/2009 2:30:15 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SEAT FRAME ASSEMBLY

Job Number: 44557

Part Number: D3016041

Job Number:



Seq. #:

Machine Or Operation:

Description :

10.0



QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

11.0



POWDER COATING

POWDER COATING



Comment: POWDER COATING

Install paint screws on fitting ends

Powder Coat Grey sandtex (Ref. 4.3.5.6) as per QSI 005

START TIME: _____

OVEN TEMPERATURE: _____

FINISH TIME: _____

12.0



QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

13.0



PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

14.0



QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN CP	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3016	REV. A SHEET 1 OF 3
DATE 01.05.18		TITLE SEAT FRAME ASSEMBLY	SCALE NTS
A	01.05.18	NEW ISSUE	

QTY	PART NUMBER	DESCRIPTION	MATERIAL
X	D3016-041	SEAT FRAME ASSEMBLY	N/A
1	D3016-1	TUBE	AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
2	D3016-3	TUBE	AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
1	D3016-5	TUBE	AISI 4130N TUBE, Ø0.50 DIA x 0.049 WALL (M4130N-T0500W049)
2	D3016-7	TUBE	AISI 4130N TUBE, Ø0.50 DIA x 0.049 WALL (M4130N-T0500W049)
1	D3016-9	SADDLE	AISI 4130N TUBE, Ø1.00 DIA x 0.120 WALL (M4130N-T1000W120)
1	D3016-11	SADDLE	AISI 4130N TUBE, Ø1.00 DIA x 0.120 WALL (M4130N-T1000W120)
1	D3016-13	BRACKET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
1	D3016-15	GUSSET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
1	D3016-17	GUSSET	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
2	D3020-1	FITTING	N/A

NOTES

- 1) WELD PER DART QSI 004
- 2) ON SHEET METAL PARTS, BREAK ALL UNMARKED CORNERS 0.020-0.040
- 3) FINISH: POWDER COAT GREY SANDTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

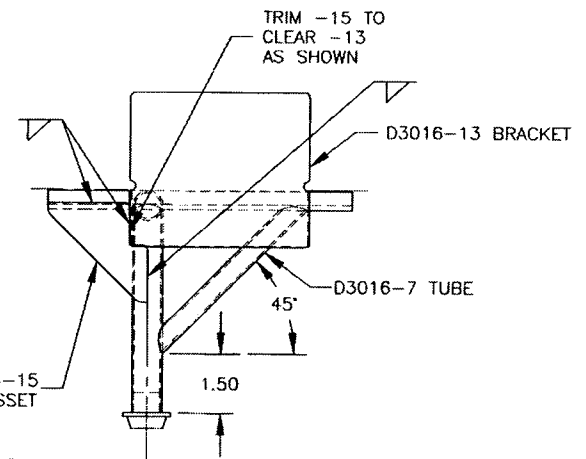
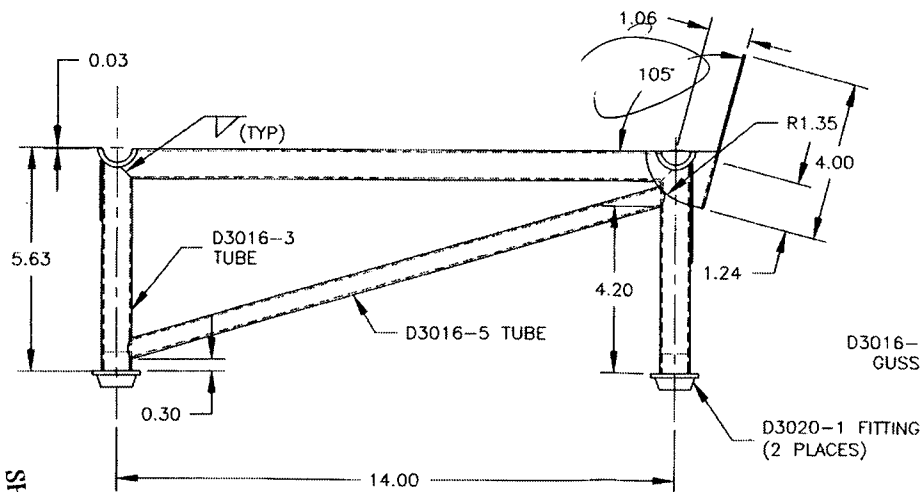
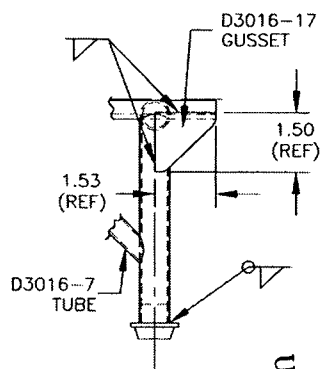
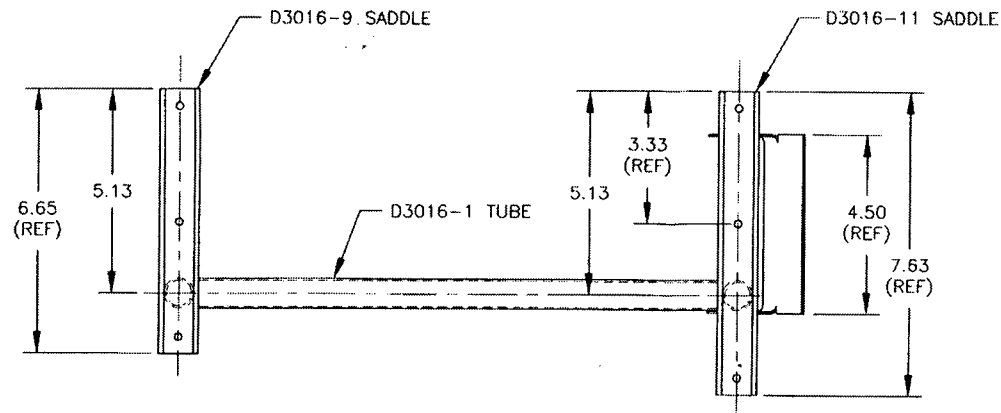
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D3016-041 SEAT FRAME ASSEMBLY



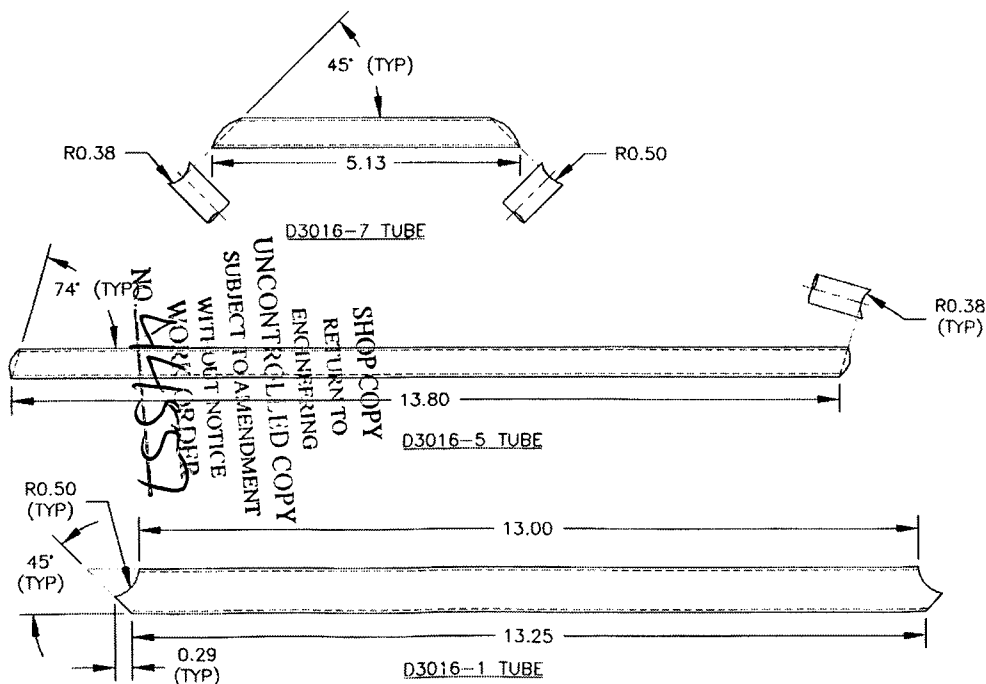
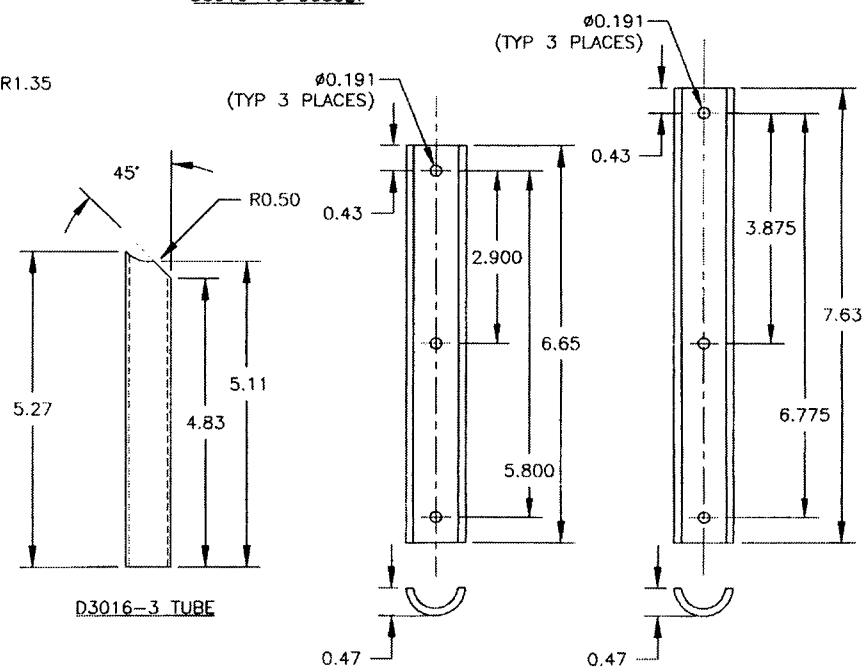
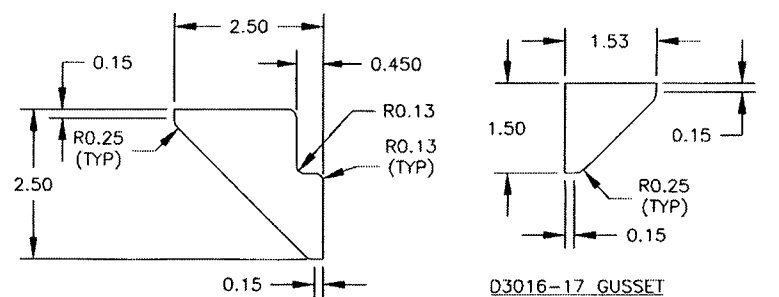
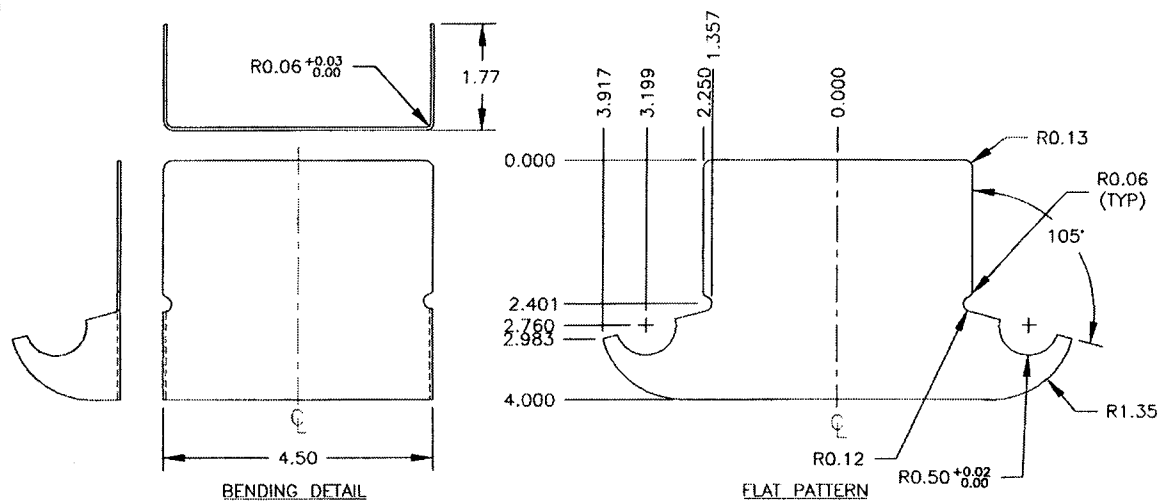
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DESIGN CP	DRAWN BY CP	DART	DART AEROSPACE LTD. HAMPSHIRE, ONTARIO, CANADA
CHECKED #	APPROVED #	DRAWING NO. D3016	REV. A SHEET 2 OF 3
DATE 01.05.18	TITLE SEAT FRAME ASSEMBLY	SCALE 1:3	



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DESIGN	CP	DRAWN BY	CP	DART DART AEROSPACE LTD. HARRISBURG, ONTARIO, CANADA	REV. A
CHECKED	✓	APPROVED	✓	DRAWING NO. D3016	SHEET 3 OF 3
DATE	01.05.18	TITLE	SEAT FRAME ASSEMBLY	SCALE	1:2